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FEB 01 2007

Amendment
App. No. 10/693,231R E M A R K S

Reconsideration of the application in view of the above amendments and the following remarks is respectfully requested. Claim 42 is currently being canceled. Therefore, claims 1-14, 17, 22 and 24-41 are pending in the application.

Information Disclosure Statement (IDS)

Applicant submitted an IDS on May 10, 2006. Applicant requests the Examiner to consider the IDS and return a signed and initialed copy of the PTO-1449 form.

Applicant also submitted an IDS on January 09, 2007. Applicant requests the Examiner to consider the IDS and return a signed and initialed copy of the PTO-1449 form.

Claim Rejections under 35 U.S.C. 101

Claims 1-3 and 17 have been rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. Applicants respectfully traverse these rejections in that, at least, the Examiner has failed to explain why the claimed invention is directed to one of the judicial exceptions to 35 U.S.C 101, an abstract idea, natural phenomenon, or law of nature.

Specifically, Section 706.03(a) of the Manual of Patent Examining Procedure (MPEP) states that the Examiner is required to do the following when making these types of rejections:

7.05.01 Rejection, 35 U.S.C. 101, Non-Statutory

the claimed invention is directed to non-statutory

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subject matter because [1]

Examiner Note

In bracket 1, explain why the claimed invention is not patent eligible subject matter, e.g.,

...

(b) why the claimed invention is directed to a judicial exception to 35 U.S.C. 101 (i.e., an abstract idea, natural phenomenon, or law of nature) and is not directed to a practical application of such judicial exception (e.g., because the claim does not require any physical transformation and the invention as claimed does not produce a useful, concrete, and tangible result);

(MPEP 706.03(a) Rejections Under 35 U.S.C. 101 [R-5] - 700 Examination of Applications) (emphasis added).

The Examiner has not identified on which of the judicial exceptions he is relying.

Applicant submits that claims 1-3 and 17 recite much more than an abstract idea, natural phenomenon, or law of nature.

For example, claim 1 recites the steps of "cutting the box space ...", "projecting an image that appears on the cut surface onto a plane in the direction of time axis", and "outputting the images appearing on the plane as new moving pictures, by varying the cut surface in time". These steps involve projecting an image and outputting the images as new moving pictures, which is much more

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than an abstract idea, natural phenomenon, or law of nature.

Further, the Examiner has merely stated that "no tangible result is produced" but has not explained why no tangible result is produced, as is required by the above-quoted Section 706.03(a) of the MPEP.

Applicant submits that claims 1-3 and 17 clearly do recite a tangible and real world result. Again, claim 1 recites projecting an image and outputting the images as new moving pictures. At least the "outputting" of "images appearing on the plane as new moving pictures" qualifies as a tangible and real world result. Indeed, the "outputting" of "images appearing on the plane as new moving pictures" qualifies as a real-world result produced by a practical application of any of the judicial exceptions to 35 U.S.C. 101 (which as mentioned above has not even been identified for these claims). The "outputting" of "images appearing on the plane as new moving pictures" is a tangible result because it is at least actual, concrete and perceptible. Furthermore, it is at least a practical application of any of the judicial exceptions.

Therefore, Applicants respectfully request the rejections of claims 1-3 and 17 under 35 U.S.C. 101 be withdrawn.

Claim Rejections under 35 U.S.C. 103

Claims 1-9, 14, 17, 22, 24-28, 31-36 and 40-42 have been rejected under 35 U.S.C. 103(b) as being unpatentable over Japanese Patent No. JP 09-035040 to Seki ("Seki"). Applicants respectfully traverse these rejections.

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1. Claims 1-9, 13, 14, 27, 29, 31, 33, 35 and 40.

Independent claims 1, 4 and 40 are allowable in that they at least require "projecting an image that appears on the cut surface onto a plane in the direction of time axis". The process is neither disclosed nor suggested in the Seki reference. Paragraph 0011 of Seki, which the Examiner points to, merely describes "the image appearing on the cut plane". No disclosure is given of projecting the image in the direction of time axis. The "cut surface" and "a plane" mean two different things in the claims at issue. The "the cut plane" described in Seki which allegedly corresponds to Applicants' claimed "the cut surface" appears to be erroneously equated by the Examiner with "a plane" according to the claims at issue. The term "a plane" is used in the present application to mean a plane onto which an image is projected in the direction of time axis. As such, "a plane" is perpendicular to the time axis. In stark contrast, Seki describes "the cut plane" as being "parallel to the time axis", indicating that it is clearly different from "a plane" of the present application. The claimed invention is directed to outputting the image obtained by projecting an image that appears on the cut surface onto a plane in the direction of time axis and is not directed to outputting an image that appears on the cut plane as in Seki.

The image output according to the claimed invention needs to be of the same form and size as the original frame so that the output image can be dealt with as a new frame of the moving image. Outputting the image that appears on the cut plane as in Seki would not result in a frame which represents an original frame, since the resultant image would differ from a frame in the moving image both in form and size. The difference derives from

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radically different purposes for which the respective technologies are used. Seki pertains to a technology for turning an object trace appearing on the cut plane into an image, for the purpose of representing the object's movement trace (see paragraphs 0001, 0004 and 0005 of Seki). In stark contrast, the invention of the present application is not directed to the purpose of tracking the movement of an object included in the original moving images but converting the original moving images into novel images by referring to frames of different time values to obtain pixel values. As such, Seki and the claimed invention are fundamentally different in purpose and operation.

Therefore, the rejections of claims 1, 4, and 40 should be withdrawn. Furthermore, the rejections of claims 2 and 3 should be withdrawn at least by virtue of their dependency from claim 1, and the rejections of claims 5-14, 27, 29, 31, 33 and 35 should also be withdrawn at least by virtue of their dependency from claim 4. Applicant is currently canceling claim 42 without prejudice, and thus, the rejection of claim 42 should be withdrawn.

2. Claims 17, 22, 24-26, 28, 30, 32, 34, 36 and 41.

Independent claims 17 and 41 are directed to sequentially outputting frames formed in synthesizing so as to form new moving images. Independent claims 22 and 24 are also directed to sequentially outputting frames formed in synthesizing. The claimed processes are unique in that "new frames" are output. Nothing of this nature is disclosed or suggested in the cited reference. Paragraph 0012 and Fig. 5, which the Examiner points to, disclose outputting synthesized images C and L, where C is "an image of the cut plane" and L is "a cross-sectional image of

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the object trace". No disclosure whatsoever is given of outputting a frame. While a frame may be defined as an image constituting original moving images (for example, an image on the X-Y plane, referring to Figs. 3 and 4 of Seki), the output images of Seki is not images on the X-Y plane but the images C and L which include temporal coordinates t. The structural difference derives from radically different purposes for which the respective technologies are used, as in the case of claims 1, 4 and 40. Seki pertains to outputting the movement trace of an object included in the original moving images as an image that appears on the cut plane, which is totally different from the technology of the present application in which original moving images are converted into novel images quite out of the context of the original images.

Therefore, the rejections of claims 17, 22, 24 and 41 should be withdrawn. Furthermore, the rejections of claims 25 and 26 should be withdrawn at least by virtue of their dependency from claim 24, and the rejections of claims 28, 30, 32, 34 and 36-39 should also be withdrawn at least by virtue of their dependency from claim 22.

Claim Objections

Claims 13, 29 and 30 are objected to as being dependent upon a rejected base claim. Applicant appreciates the Examiner's indication these claims would be allowable if rewritten in independent form. However, Applicant submits, in view of the remarks above, that the corresponding independent claims 4 and 22 are allowable in their current form, which makes rewriting of claims 13, 29 and 30 unnecessary.

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Fees Believed to be Due

Fees have previously been paid in this application for a total of 35 claims with 9 claims being independent claims. The above amendment has resulted in there now being a total of 34 claims with 7 claims being independent claims. Thus, no extra claims fees are believed to be due.

C O N C L U S I O N

By way of this response, Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain any outstanding issues that require adverse action, it is respectfully requested that the Examiner telephone Richard E. Wawrzyniak at (858) 552-1311 so that such issues may be resolved as expeditiously as possible.

Respectfully submitted,



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Reg. No. 36,048

Dated: 2/1/07

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